

10/050,758

F0597

REMARKS

Claims 1-22 are currently pending in the subject application and are presently under consideration. A listing of all claims is at pages 2-5. Favorable consideration of the subject patent application is respectfully requested in view of the comments herein.

I. Rejection of Claims 1-4, 7-10, 14, and 17-20 Under 35 U.S.C. §102(b)

Claims 1-4, 7-10, 14 and 17-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by Hirosawa (US Patent No. 6,151,116). It is respectfully submitted that this rejection should be withdrawn for at least the following reason. Hirosawa does not teach or suggest each and every element of the subject claims.

A single prior art reference anticipates a patent claim *only if* it expressly or inherently *describes each and every* limitation set forth in the patent claim. *Trintec Industries, Inc., v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2D 1597 (Fed. Cir. 2002). "A claim is anticipated *only if each and every* element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The *identical* invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)

Independent claims 1, 7, 14 and 17 (and respective associated dependent claims) recite and similar claim element, namely: a control system operable to control the source to *selectively emit* the incident beam based on an angular orientation of the substrate such that the incident beam *selectively interrogates a region of the substrate near the axis*. Hirosawa does not disclose, teach or suggest such a facility.

The subject claimed invention relates to a system and method to monitor the characteristics of a substrate. In particular, the control system and method selectively emits an incident beam based on the angular orientation of the substrate with respect to the emitted beam. The selectively emitted beam, thereupon selectively interrogates a region of the substrate near the rotational axis, e.g. the central region, of the rotating substrate. The control system controls not only the selective emission of the beam, but also determines the position of the substrate with respect to the emitted beam, as well as, based on rotation information and/or registration

10/050,758

F0597

information provided by the positioning system, *e.g.* position and/or velocity information, alignment markers, apertures, reflectors *etc.*, the synchronization of the emitted beam. It is apparent then that the control system utilizes the rotational and/or registration information of the substrate to determine the appropriate instance at to which to selectively emit the incident beam and selectively interrogate the central region of the substrate. Thus, the emitted incident beam is selectively emitted when the substrate is oriented in a manner conducive to interrogation of the area near the central region of the substrate. (*See*, page 6, lines 14-28).

Hirosawa relates to a method and apparatus for evaluating thin film molecular orientations. In particular, Hirosawa obtains the molecular orientation state of an organic thin film formed on a substrate recording medium, the organic thin film having anisotropy. Nowhere does Hirosawa disclose, teach or suggest, a control system to *selectively emit* an incident beam based on the angular orientation of the substrate such that the incident beam *selectively interrogates a region of the substrate near the axis*. Rather, Hirosawa teaches a method and apparatus whereby the infrared beam is used to measure a *plurality of measurement points on the sample thin film*. (Hirosawa, column 3, lines 15-19). It is apparent therefore that Hirosawa does not selectively emit an incident beam, and neither does Hirosawa selectively interrogate a region of the substrate near the axis, but rather the incident infrared beam is continuously emitting infrared light while moving to the plurality of measurement points on the sample thin film. Thus, Hirosawa does not *selectively emit* an incident beam, nor does Hirosawa *selectively interrogate a region of the substrate near the axis*. Therefore, Hirosawa does not teach or suggest each and every element of applicants' claimed invention.

In view of at least the foregoing, it is respectfully submitted that Hirosawa neither teaches nor suggests each and every claim element in applicants' claimed invention as recited in independent claims 1, 7, 14 and 17 (and respective claims that depend there from). Accordingly, it is respectfully requested that this rejection should be withdrawn.

II. Rejection of Claims 5, 6, 11-13, 15, 16, 21 and 22 Under 35 U.S.C. §103(a)

Claims 5, 6, 11-13, 15, 16, 21 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hirosawa (U.S. Patent No. 6,151,116) in view of Temple *et al.* (U.S. Patent No. 4,592,939). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Claims 5, 6, 11-13, 15, 16, 21 and 22 depend from independent claims 1,

10/050,758

F0597

7, 14 and 17, and Temple *et al.* does not make up for the aforementioned deficiencies in Hirosawa with respect to teaching or suggesting a control system operable to control the source to *selectively emit* the incident beam based on an angular orientation of the substrate such that the incident beam *selectively interrogates a region of the substrate near the axis*. Accordingly it is respectfully requested that this rejection should be withdrawn.

10/050,758

F0597

CONCLUSION

The present application is believed to be in condition for allowance, in view of the above comments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

AMIN & TUROCY, LLP



Himanshu S. Amin
Reg. No. 40,894

AMIN & TUROCY, LLP
24TH Floor, National City Center
1900 E. 9TH Street
Cleveland, Ohio 44114
Telephone (216) 696-8730
Facsimile (216) 696-8731